

09/979,539

1/4

<u>H-FR1</u>		<u>H-CDR1</u>	<u>H-FR2</u>	<u>H-CDR2</u>
MQVQLQQSGPELEKPGASVKLSCKASGYSFT		GYTMN	WVKQSHGKSLEWIG	LITPYNGASSYNQKFRG
<u>H-FR3</u>	<u>H-FR3</u>	<u>H-CDR3</u>	<u>H-FR4</u>	
KATLTVDKSSSTA	YMDLLSLTSEDSAVYFCAR	GGYDGRGFDY	WGQGTTVTVSS	
<u>LINKER</u>		<u>L-FR1</u>	<u>L-CDR1</u>	<u>L-FR2</u>
GVGGSGGGSGGGGS		DIELTQSPAIMSASPGKEVTMTTC	SASSSVSYMH	WYQQKSGTSPKRWIY
<u>L-CDR2</u>	<u>L-FR3</u>	<u>L-CDR3</u>	<u>L-FR4</u>	
DTSKLAS	GVPGRFSGSGSGNSYSLTISSEVAEDDATYYC	QQWSGYPLT	FGAGTKLEIK	

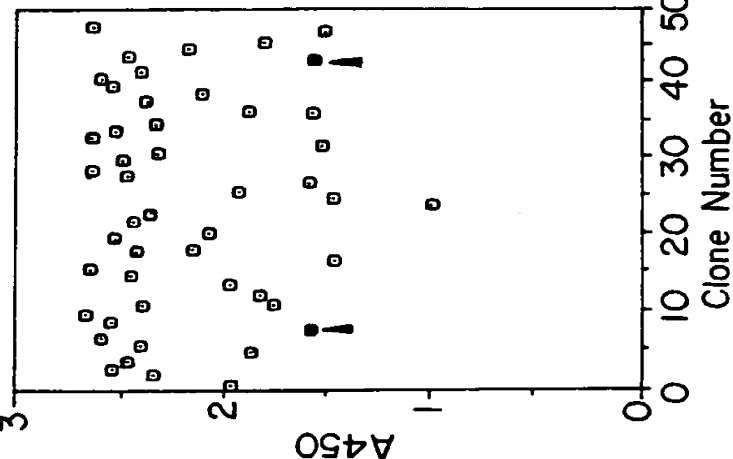
FIG. 1.

FIG. 2A.

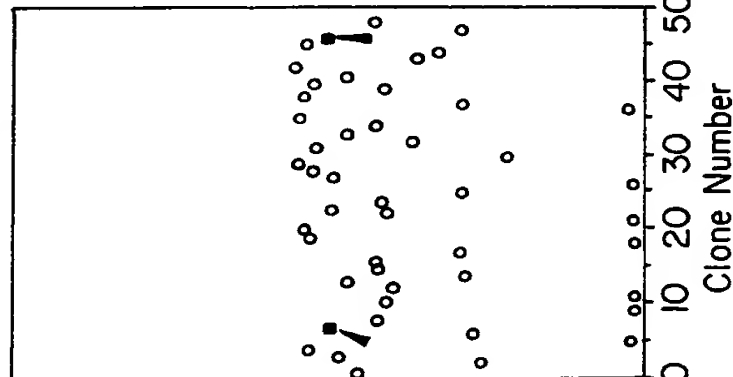
Residue number	89	90	91	92	93	94	95	96	97
Codon	CAG	CAG	TGG	AGT	GGT	TAC	CCT	CTC	ACG
Amino acid	Q	Q	W	S	G	Y	P	L	T

SS VL CDR3

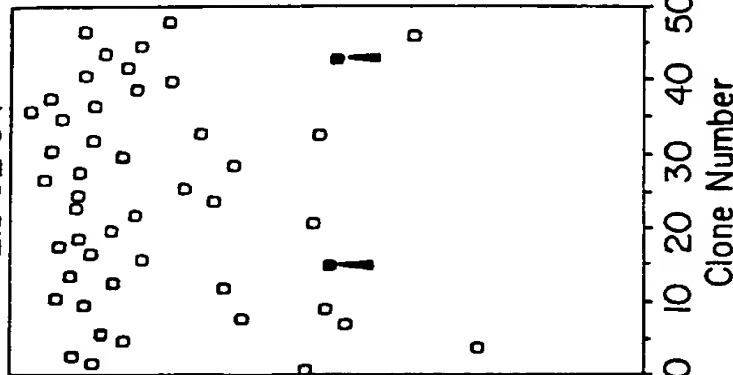
Lib 89/93/94



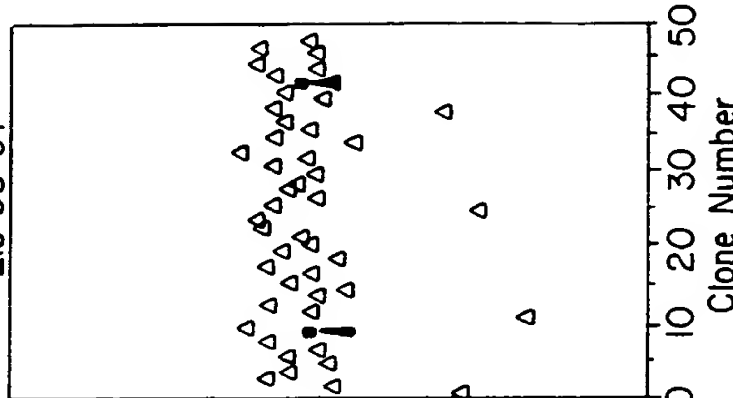
Lib 89-91



Lib 92-94



Lib 95-97



2/4

FIG. 2B.

FIG. 2C.

FIG. 2D.

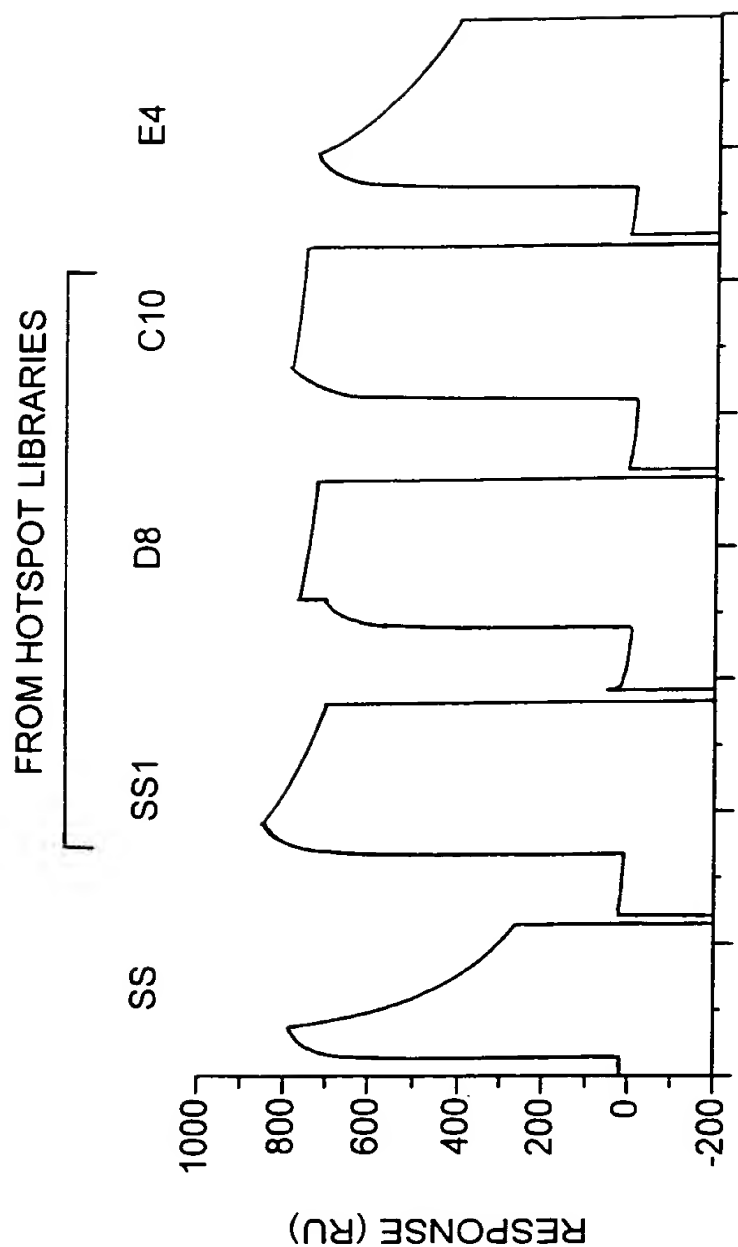
FIG. 2E.

09/979,539

CLONE	RESIDUES RANDOMIZED	CLONE NAME	VL CDR3 NUCLEOTIDE AND AMINO ACID SEQUENCE									
PARENTAL	NONE	SS	89	90	91	92	93	94	95	96	97	
			cag	cag	tgg	agt	ggt	tac	cct	ctc	acg	
			Q	Q	W	S	G	Y	P	L	T	
							↓	↓				
LIB 89/93/94	89, 93 AND 94	SS1	Q				K	H				
		C5*	Q				G	H				
		D7*	Q				A	H				
		B7	Q				Q	I				
LIB 89-91	89-91	B4	Q	Q	W							
LIB 92-94	92-94	D8*				G	F	N				
		D9*				G	T	N				
		C10*				G	S	H				
		C3				G	D	F				
		C4*				G	D	H				
		E9*				S	K	H				
		E2				S	A	H				
LIB 95-97	95-97	E4*							P	T	T	

3/4

FIG. 3.



TIME (SECONDS)

K_d (s^{-1})	2.34×10^{-3}	2.23×10^{-4}	6.22×10^{-5}	6.56×10^{-5}	6.12×10^{-4}
K_a ($M^{-1}s^{-1}$)	2.13×10^5	3.11×10^5	2.06×10^5	3.08×10^5	2.11×10^5
K_D (nM)	11	0.72	0.3	0.2	3

FIG. 4.